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Giovanni Coglitore

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MORRISON & FOERSTER LLP

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EXAMINER

LEA EDMONDS, LISA S

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



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**MAILED**

**JUL 13 2007**

**GROUP 2800**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/678,006  
Filing Date: October 01, 2003  
Appellant(s): COGLITORE ET AL.

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Rick Shoop  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 23 February 2007 (23.02.2007) appealing from the Office action mailed 26 January 2006 (26.01.2006).

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

The real party in interest for this appeal is: Rackable Systems, Inc., 1933 Milmont Drive, Milpitas, California 95035.

**(2) Related Appeals and Interferences**

The following are the related appeals, interferences, and judicial proceedings known to the examiner, which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

This patent application is a continuation of an application that has resulted in the issuance of U.S. Patents 6,496,366 and 6,850,408. These patents are currently being litigated in the litigation identified below.

Rackable Systems, Inc. v. Super Micro Computer, Inc. (US DC NDCA), Case No. 3:05-cv-03561 -PJH.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,691,274	Matouk et al.	09-1987
5,971,506	Dubin	10-1999
6,011,689	Wrycraft	1-2000

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-14, 16-22, 24-34, 38-43, and 46-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matouk et al. (4691274) in view of Dubin (5971506). With respect to claims 1-6, 8-14, 16-22, 24-31, 32-34, 38-43, and 46-51,

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Matouk et al. teaches at least two modules (41, 42, 43) comprising at least one heat-generating component, each module (41, 42, 43) adapted to permit air to flow in the module such that airflow goes through, over, or adjacent to the at least one heat-generating component to cool the at least one heat-generating component; and a rack (12) configured for the at least two modules (41, 42, 43) to be placed in a back-to-back configuration such that the rack and components will cooperate to direct air that flows through the modules (41, 42, 43) to (1) up to exit the rack through an upper section of the rack, (2) down to exit the rack through a lower section of the rack, or (3) both, wherein the modules and the rack cooperate to define a space between at least two back-to-back modules (see for example figures 1, 3, 4). However, Matouk et al. lacks a clear teaching of the modules being computers as claimed. Dubin is relied upon for its teaching of a rack mounting computer (100) comprising at least one heat-generating component, and being adapted to permit air to flow in the computer such that airflow goes through, over, or adjacent to the at least one heat-generating component to cool the at least one heat-generating component, wherein the computer further comprises a chassis (10) comprising a front panel (60), wherein each computer further comprises a chassis comprising enclosing at least one main board, wherein the computer is configured with at least one vent (64) provided at a front section as claimed (see for example figures 3-6). It would have been obvious to one skilled in the art at the time the invention was made to incorporate the computer of Dubin into the rack of Matouk et al. to convert the computer into a rack mounted system. With respect to claims 9 and 25, and the claimed limitation of the air exiting through the computers, as implied by

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applicant (see page 21 ¶0072) regardless of which flow direction is chosen ... advantageous flow across heat-generating components which must be cooled is possible, therefore it would have been obvious to one skill in the art to for both Matouk et al. and Dubin to "choose" any flow direction as claimed.

Claims 7, 15, 23, 31, 35, 36, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matouk et al. (4691274) in view of Dubin (5971506) as applied to the claims above, and further in view of Wrycraft (6011689). With respect to claims 7, 15, 23, and 31, Matouk et al. (4691274) in view of Dubin (5971506) teach the invention as set forth above. However, Matouk et al. (4691274) in view of Dubin (5971506), lacks a clear teaching of the at least one vent (64) being provided at a back section and providing fans as claimed. Wrycraft is relied upon for its teaching of the at least one vent (64) being provided at a back section and providing fans as claimed (see for example figures 1-9). It would have been obvious to one skill in the art at the time the invention was made to incorporate the teachings of Wrycraft into the apparatus of Matouk et al. (4691274) in view of Dubin (5971506) to aid in cooling of the heat-generating components.

#### **(10) Response to Argument**

With respect to applicant's arguments dated 02/23/2007, the examiner of record respectfully disagrees. Applicant asserts that (1.) neither Matouk et al. nor Dubin discloses or suggests providing computers in a back-to-back configuration in the modular power supply "framework" of Matouk et al., (a.) neither Matouk nor Dubin teach

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or suggest placing a computer in a back-to-back modular power supply framework, (b.) one of ordinary skill would not have been motivated to dispose rack mountable computers in Matouk's "framework", and (c.) Dubin does not disclose or suggest relocating these connectors to a front of a computer chassis, such that one of ordinary skill would have been motivated to use those chassis in Matouk's "framework"; (2.) the Proffered Motivation to Combine and Modify Matouk and Dubin is Insufficient; and (3.) Matouk in view of Dubin does not teach or suggest the claimed arrangement permitting air to flow through each computer such that airflow goes through, over, or adjacent to the at least one heat-generating component and wherein the rack and computers cooperate to direct airflow through the computers up down, or both to enter (claims 9, 25) or exit (claims 1, 17) the rack and (i) it is the Examiner's burden to show a teaching or suggestion, either explicit or inherent, of all the limitations of the claim. Applicant also asserts that Wrycraft does not cure the deficiencies of Matouk et al. in view of Dubin as alleged above.

With respect to applicant's assertion that neither Matouk et al. nor Dubin discloses or suggests providing and/or placing computers in a back-to-back configuration as argued. The examiner for record never alleged that Matouk et al. or Dubin solely discloses or suggests providing and/or placing "computers" in a back-to-back configuration. To the contrary, the examiner of record freely admits that Matouk et al. lacks a teaching of the modules (41, 42, 43) being computers as claimed, see the above 103 rejection thereof. However, the examiner of record relies upon the teachings of Dubin, which provides the rack mountable computer that Matouk et al. lacks. It is noted that the examiner of record

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believes the combined teachings of Matouk et al. and Dubin discloses applicant's claimed invention, in as much as Matouk et al. clearly teaches interchangeable electrical equipment being place in a back-to-back configuration in a framework (rack) and Dubin teachings a rack mountable computer, however lacking a clear teaching of the rack to which the rack mountable computer are placed. Dubin does, however, suggest an environment in which his invention is to be used. In the background section, column 1 lines 17-21, Dubin suggest using the computers in a laboratory and repair shops where electrical equipment is often mounted in racks. Dubin goes on to state that computers are not readily insertable in electrical equipment racks as a problem in the art. It is this very problem, which the invention of Dubin overcomes. Dubin clearly suggest that his rack mountable computer is to be mounted in an electrical equipment rack when it becomes necessary to use a computer in conjunction with other components typically mounted in racks. Matouk et al. clearly teaches a framework (rack) with electrical equipment mounted thereon and being used in conjunction with computers. With respect to applicant's assertion that one of ordinary skill would not have been motivated to dispose rack mountable computers in Matouk's "framework". It is noted that the examiner of record has afforded the broadest, reasonable interpretation to applicant's "rack" and Matouk et al.'s "framework". Rack is defined as a **framework** or stand in or on which to hold, hang, or display various articles (see The America Heritage College Dictionary, fourth edition). Framework is defined as a structure for supporting or enclosing something else, especially the skeletal support of a physical construction (see The America Heritage College Dictionary, fourth edition).



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Understanding the above definitions of both rack and framework and the ordinary skill in the art, one would find motivation to combine the rack mountable computers of Dubin into the framework (rack) of Matouk et al. simply to provide a support structure for the rack mountable computers. The teaching of a back-to-back configuration, as clearly taught by Matouk et al., would be advantageous in the electrical equipment environment, where a plurality of electrical equipment is supported in mass quantities or in conjunction with one another. Applicant alleges that even if the rack-mountable computers of Dubin were combine with Matouk's et al. modular power supply framework, the combination would require substantial untaught modification, and would still not include all of the limitations of the applicant's pending claims. It is noted that the examiner of record has afforded the broadest, reasonable interpretation to the applicant's "rack" and Matouk et al.'s "framework". Applicant also asserts that Matouk et al. teaches a "custom framework". Applicant relies upon figure 3 (see below), and

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column 3 lines 45-47, 65-66, and column 4 lines 9-12.

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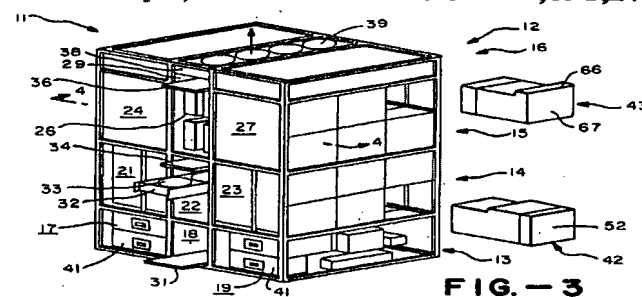


FIG. - 3

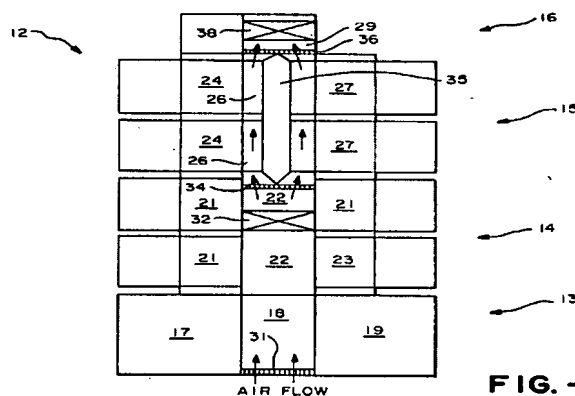


FIG. - 4

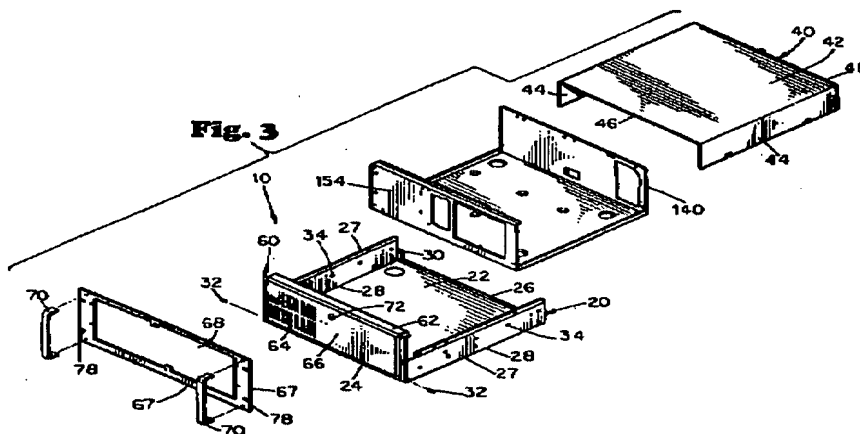
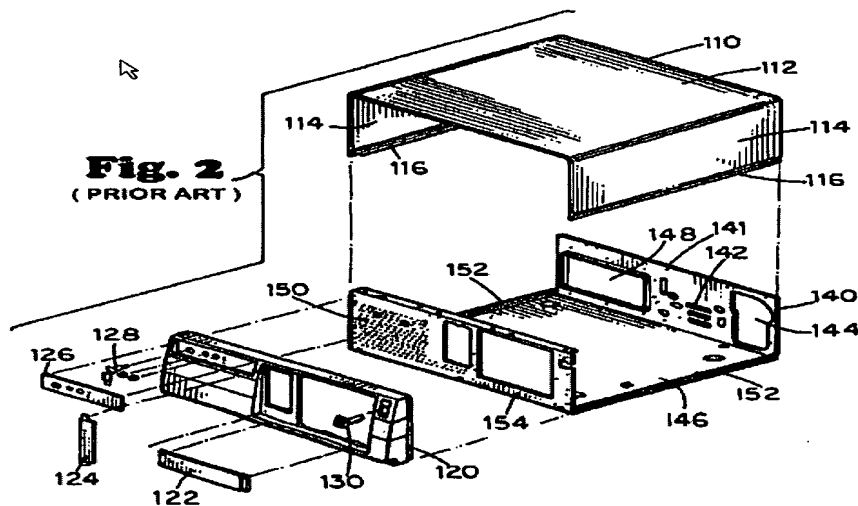
The examiner of record respectfully disagrees with applicant's assertion of a custom framework. It appears that applicant has omitted Matouk et al.'s teaching of the framework (rack) being formed in such a manner so that four sections (13, 14, 15, and 16) are provided where each section has two side compartments (17, 19, 21, 23, 24, 27 respectfully) with an intermediate compartments (18, 22, 26, 29 respectfully) there between (see for example figure 4 above and column 2 lines 40-57). Matouk et al. also teaches a plurality of electrical equipment being places in side compartments (21, 23, 24, 27). It is this very back-to-back teaching one of ordinary skill in the art would

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recognize as motivation, coupled with the fact that Dubin teaches his computer being mounted in a laboratory or repair shop electrical equipment rack. The fact that Matouk et al. places a plurality of specific modules in specific location of the rack would not hinder one of ordinary skill in the art to view that attributes of the rack itself. Those attributes are, a rack being configured to support electrical equipment in a back-to-back configuration and providing cooling means. Specifically since Matouk et al. teach sliding removable and interchangeable electrical equipment, one of ordinary skill in the art would also note such relocation or exchange of electrical equipment as routine. It is unclear, what "extensive modification" applicant is suggesting. With respect to applicant's assertion that Dubin does not disclose or suggest relocating these connectors to a front of a computer chassis, such that one of ordinary skill would have been motivated to use those chassis in Matouk's "framework". It appears, to the examiner of record, that applicant is arguing limitations not claimed. Applicant states that Matouk et al. "envision" that its invention can be connected to a computer via an input/output module (41), which can be used to power the computer. It appears that applicant has omitted Matouk et al.'s teaching of the input/output module (41) being used to provide DC power to supply the fans (see column 3 lines 49-64). However, Matouk et al. lacks a clear teaching of the "wires" needed to "connect" the input/output module (41) and fans. One of ordinary skill in the art would recognize Matouk et al.'s lacks of description as well known and routine in the art. One of ordinary skill would have the ability to place "wires" in an electrical equipment rack as needed and necessary. Such placement of wires would in no way be considered out side of the skill

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in the art or unsubstantiated. To the contrary, one would view wire placement as merely routine and necessary. It appears that applicant is relying upon the prior art (figure 2, see below), which Dubin cites as an example of the deficiencies in converting a standard computer into a rack mountable computer.



Applicant is directed to Dubin's figure 3(see below). Dubin teaches modifying the prior art computer of figure 2 by removing the cover and faceplates of the prior art computer to provide easy accessibility to the inside of the computer. The modifications, in which Dubin envisioned, are represented by figure 3 (see below). One of ordinary skill would

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not confuse figures 2 and 3 of Dubin. There is no suggestion that the invention of Dubin would include the openings, which applicant relies upon as connector, nor that the connectors or wires of Dubin would not be accessible. Dubin further teaches the computer be modified in such a way as to be slid into and out of a rack, which inherently provides one of ordinary skill in the art access to the connectors and components contained within the computer and thus the rack.

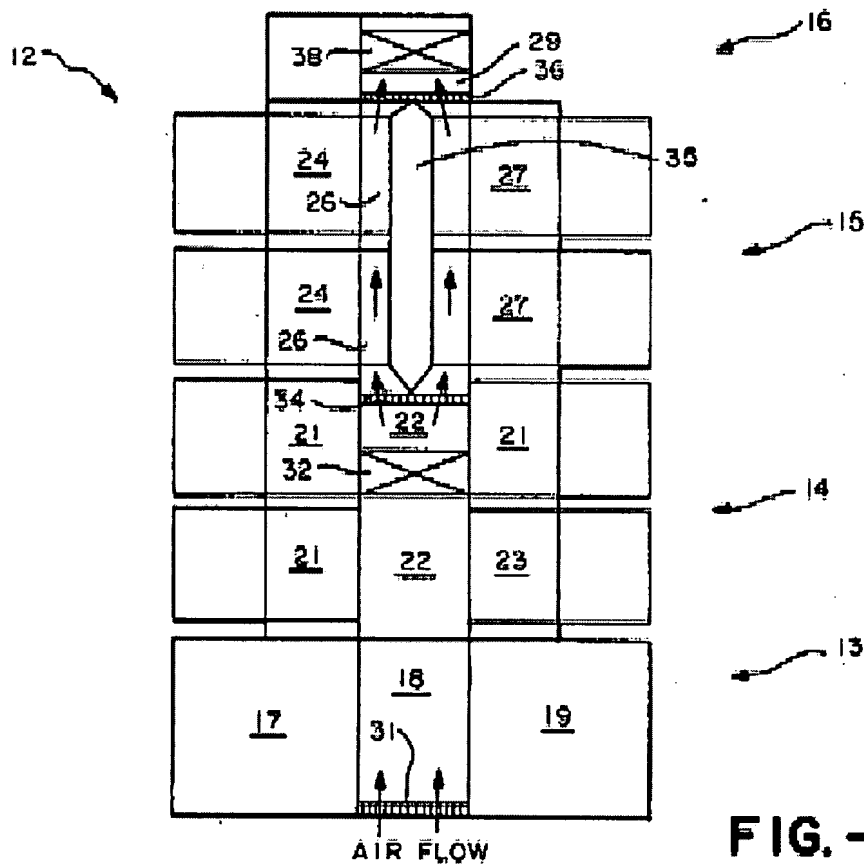
Applicant's asserts that the proffered motivation to combine and modify Matouk and Dubin is insufficient. It appears applicant is arguing the connections between the input/output module of Matouk et al. and the connectors shown in prior art reference of Dubin. It is noted that the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In this case, Matouk et al. clearly teaches interchangeable electrical equipment being place in a back-to-back configuration in a framework (rack) and Dubin teachings a rack mountable computer, however Dubin lacks a clear teaching of the rack to which the rack mountable computer are placed. Dubin does, however, suggest an environment in which his invention is to be used. In the background section, column 1 lines 17-21, Dubin suggest using the computers in a laboratory and repair shops where electrical equipment is often mounted in racks. Dubin goes on to state that computers are not readily insertable in electrical equipment racks as a problem in the art. It is this very problem, which the invention of Dubin overcomes. Dubin clearly

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suggest that his rack mountable computer is to be mounted in an electrical equipment rack when it becomes necessary to use a computer in conjunction with other components typically mounted in racks. Matouk et al. clearly teaches a framework (rack) with electrical equipment mounted thereon and being used in conjunction with computers. Also, Dubin teaches modifying the prior art computer of figure 2 (see above) by removing the cover and faceplates of the prior art computer to provide easy accessibility to the inside of the computer. The modifications, in which Dubin envisioned, are represented by figure 3 (see above). One of ordinary skill would not confuse figures 2 and 3 (see above respectfully) of Dubin. There is no suggestion that the invention of Dubin would include the openings, which applicant relies upon the connector, as depicted in figure 2 (see above), nor that the connectors or wires of Dubin would not be accessible. Dubin further teaches the computer being modified in such a way as to be slid into and out of a rack, which inherently provides one of ordinary skill in the art access to the connectors and components contained within the computer and thus the rack.

With respect to applicant's assertions that Matouk in view of Dubin does not teach or suggest the claimed arrangement permitting air to flow through each computer such that airflow goes through, over, or adjacent to the at least one heat-generating component and wherein the rack and computers cooperate to direct airflow through the computers up down, or both to enter (claims 9, 25) or exit (claims 1, 17) the rack and (i) it is the Examiner's burden to show a teaching or suggestion, either explicit or inherent, of all the limitations of the claim. Applicant also asserts that Wrycraft does not cure the

deficiencies of Matouk et al. in view of Dubin as alleged above. Matouk et al. teaches electrical equipment (41, 42, 43) being disposed in a framework (rack), which provides means to cool the electrical equipment (41, 42, 43), see figure 4 below.



Applicant claims an arrangement permitting air to flow through each computer such that airflow goes through, over, or adjacent to the at least one heat-generating component and wherein the rack and computers cooperate to direct airflow through the computers up down, or both to enter (claims 9, 25) or exit (claims 1, 17). It appears that applicant is arguing the teachings of Matouk et al. in view of Dubin separately. Matouk et al. discloses an arrangement permitting air to flow adjacent the at least one heat-

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generating components (41, 42, 43) via the heat sinks, which extends into the intermediate compartments (18, 22, 26, 29 respectfully) space between two side compartments (17, 19, 21, 23, 24, 27 respectfully). Dubin teaches a computer with vents which permits air to pass through, over, or adjacent the at least one heat-generating components. It is the combination of Matouk et al. in view of Dubin, which the examiner of record relies upon for teach an arrangement permitting air to flow through each computer such that airflow goes through, over, or adjacent to the at least one heat-generating component and wherein the rack and computers cooperate to direct airflow through the computers up down, or both to enter (claims 9, 25) or exit (claims 1, 17) as claimed. With respect to applicant's remarks concerning the examiner's burden to show a teaching or suggestion, either explicit or inherent, of all the limitations of the claim. It is the position of the examiner of record that a proper prima facie case of obviousness has been established. The examiner of record has never attempted to shift the burden of proof to the applicant. The examiner of record merely attempted to restate the position in a way that might clear applicant's confusion. The examiner of record attempted to make applicant understand that neither Matouk et al. nor Dubin teach or suggest hermetically sealed or air tight equipment. One of ordinary skill in the art would understand that if a device is not hermetically sealed or air tight, than air would be permitted to flow through, over, or adjacent to the device. Finally, applicant also asserts that Wrycraft does not cure the deficiencies of Matouk et al. in view of Dubin as alleged. It is the position of the examiner of record, that Wrycraft is relied upon teach of a plurality of vents located on the back section as claimed.



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In conclusion, it is the position of the examiner of record that claims 1-51 are not allowable over the prior art of record, given the foregone remarks.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Lisa Lea-Edmonds



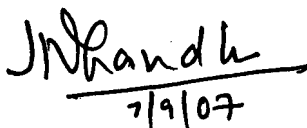
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